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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,572	07/18/2006	Peter Kristian Bjornsson	09546-030US1	6472

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EXAMINER

DUONG, THO V

ART UNIT	PAPER NUMBER
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3744

NOTIFICATION DATE	DELIVERY MODE
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03/16/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No. 10/586,572	Applicant(s) BJORNSSON ET AL.	
	Examiner Tho v. Duong	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's amendment filed 12/5/08 is acknowledged. Claims 27-52 are pending.

Response to Arguments

Applicant's arguments filed 12/5/08 have been fully considered but they are not persuasive. Applicant's argument that reference to Bergqvist illustrates that the distribution area has a base surface located at a lower level to the right in figure 4 than it is to the left in figure 4, which does not "sink continuously from the upper plate plane in the proximity of the edge area of the primary porthole at to lower level in the proximity of the lower plane in the proximity of the secondary edge zone", has been very carefully considered but is not found to be persuasive. Applicant is reminded that the examiner must interpret the limitation as broadly as it reasonably allows. The examiner has pointed it out that the limitation of "sink continuously" is shown in figure A with label of "portion where the plate sink left to right and a height of a plate interspace decreases continuously". In this case, the term "proximity" is interpreted as "close to " or "near". Since the left upper portion of the "sink continuously" is near to the primary port hole, it is reasonably to read the left upper portion on the limitation of "the proximity of the edge area of the primary porthole" and since the right lower portion of the "sink continuously" is located near or close to the right edge of the plate, it is reasonably to read the right lower portion on the limitation of "the proximity of the secondary edge zone". Therefore, the rejections of claims 27-52 remain proper.

Claim Rejections - 35 USC § 102

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27-52 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bergqvist et al. (US 4,987,955). Bergqvist discloses (figures 1-4 and figure A as see bellow) a plate package for a plate heat exchanger including at least two identical heat exchanger plates having a plate interspace therebetween, wherein the heat exchanger plate extends between a primary edge zone and a secondary edge zone in parallel with a central extension plane, an upper plate plane and a lower plate plane, wherein the central extension plane includes a center axis dividing the heat exchanger plate into a primary part and a secondary part, the heat exchanger plate comprising a first end area, a second end area, a central heat transfer area (9), which extends between the primary edge zone and the secondary edge zone from the first area to the second end area; a primary porthole (11a) and a secondary porthole (11b), which extend through the heat exchanger plate in the first end area and each of which is surrounded by a respective adjoining edge area, wherein the primary porthole (11a) is located on the primary part and the secondary porthole (11b) is located on the secondary part, a

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distribution area which extends on the first end area and has a base surface extending from the primary porthole (11a) to the central heat transfer area, wherein the base surface is located at an upper level in the proximity of the upper plate plane in the proximity of the edge area of the primary porthole and sinks continuously from the upper level to a lower level in the proximity of the lower plate plane in the proximity of the secondary edge zone; the base surface sinks continuously along a border to the central heat transfer area from the upper level to the lower level and from the proximity of the primary edge zone to the proximity of the secondary edge zone; the distribution area includes a number of projections and depressions (15), and substantially each projection extends in a respective direction running from the primary port hole towards the central heat transfer area; wherein the projection (15) has a length which is substantially shorter than the distance from the primary porthole to the central heat transfer surface area along the direction of the projection. Regarding claim 35, wherein substantially each depression (depression formed between two projections 15, figure 2) extends substantially perpendicular to the direction of an adjacent projection, wherein the direction of the projection is considered to be radial direction to center of the port hole. Regarding claims 36, 37 and 39, Bergqvist discloses (column 3, lines 45-60) the heat exchanger plate is symmetrical with regard to the center axis so that substantially each depression has a shape and a position corresponding to a shape and a position of a projection on the other side of the center axis, and each depression is designed to abut a projection of an adjacent turned heat exchanger plate in the plate package. Regarding claim 28, the limitation of "compression-molding" is not germane to the issue of the patentability of the device itself. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product

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does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In this case, the heat exchanger plate in the product by process claim is the same as or obvious from the heat exchanger plate of Bergqvist, the claim is unpatentable even though the prior heat exchanger plate was made by a different process. Regarding claims 38 and 49, applicant is reminded that the examiner must interpret the limitation as broadly as it reasonably allows, in which Bergqvist discloses (figure 2) each projection (15) and depression (between the projections) having two long sides and two ends wherein one of the ends of the projections on the secondary part extends to one of the long side of a depression and one of the ends of the depression on the primary part extends to one of the long sides of a projection.

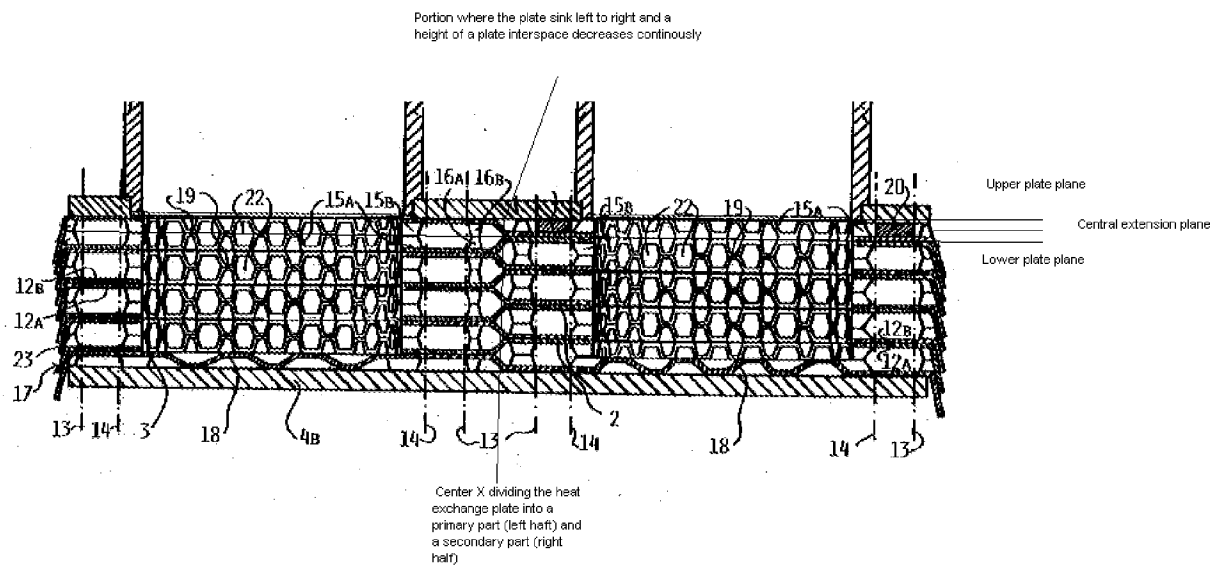


Figure A: The modified figure corresponds to figure 4 with limitation shown.

Conclusion

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho v. Duong whose telephone number is 571-272-4793. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tyler J. Cheryl can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tho v Duong/
Primary Examiner, Art Unit 3744